

SPECIFICATION FOR APPROVAL

Customer :		
Customer P/N:		
Drawing No :		
Quantity :	Pcs.	Date :
Chilisin P/N :	APTE00160905601YYE	

Automotive Grade Inductor

Halogen Free
RoHS Compliant
REACH Compliant
Lead Free Solders
AEC-Q200

奇力新電子股份有限公司

Chilisin Electronics Corp
No. 29, Alley 301, Tehhsin Rd.,
Hukou, Hsinchu 303, Taiwan
TEL : +886-3- 599-2646
FAX : +886-3- 599-9176
E-mail : sales@chilisin.com
http : //www.chilisin.com

東莞奇力新電子(東莞廠)有限公司

Chilisin Electronics (Dongguan) Co., Ltd.
No. 78, Puxing Rd., Yuliangwei Administration
Area, Qingxi Town, Dongguan City,
Guangdong, China
TEL : +86-769-8773-0251~3
FAX : +86-769-8773-0232
E-mail : cect@chilisin.com

奇力新電子(越南廠)有限公司

Chilisin Electronics (Vietnam) Limited
No 143 - 145, Road No 10, VSIP Hai
Phong, Lap Le Commune, Thuy
Nguyen Dist, Haiphong City, Vietnam
Tel : 84-316 255 688 Fax : 84-316
255 689
E-mail : sales@chilisin.com

奇力新電子(湖南廠)有限公司

HuNan Chilisin Electronics Technology Co., Ltd
No. 8, Shaziao Liangshuijing Town, Yuanling
County, Huaihua City, Hunan Province 419601,
China
Tel : 86-745-867-5882
E-mail : cect@chilisin.com

Drawn by
Stanley

Checked by
Marco

Approved by
Vincent

REVISIONS

REV.	Description	Date	Approved by	Checked by	Checked by	Prepared by
00	Issue	2023.01.06	Vincent	Marco	Stanley	Lisa

1 Scope: This specification applies to the Pb Free DC Power Line Common Mode Filter

2 Part Numbering:

A PTE 00 160905 601 Y YE
① ② ③ ④ ⑤ ⑥ ⑦

- ① Grade Code
- ② Product Code
- ③ Control Code
- ④ Dimensions Code
- ⑤ Inductance Code
- ⑥ Tolerance Code
- ⑦ Inner Control Code

3 Rating:

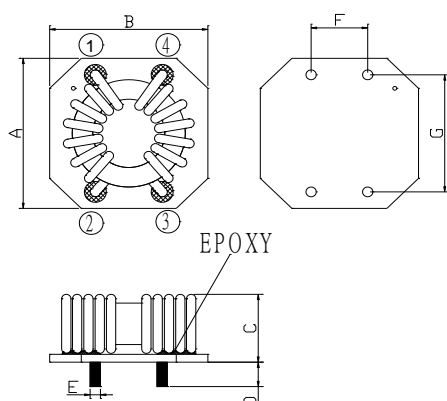
Operating Temperature: $-40^{\circ}\text{C} \sim 125^{\circ}\text{C}$ (Including self - temperature rise)

Storage Temperature: $-40^{\circ}\text{C} \sim 125^{\circ}\text{C}$

4 Standard Testing Condition:

	Unless otherwise specified	In case of doubt
Temperature	Ordinary Temperature(15 to 35°C)	20 to 30°C
Humidity	Ordinary Humidity(25 to 85% RH)	50 to 80 %RH

5 Configuration and Dimensions:

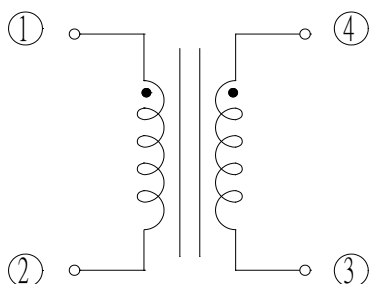


A: 21.0 Max.	mm
B: 21.0 Max.	mm
C: 12.0 Max.	mm
D: 3.5 ± 0.5	mm
E: 1.0 ± 0.1	mm
F: 8.0 ± 1.0	mm
G: 16.0 ± 1.0	mm

6 Electrical Characteristics:

PT/NO.	L (μ H)	L TEST FREQ.	RDC (m Ω)MAX.	RATED DC CURRENT IDC(A)	Insulation Resistance (M Ω) Min.
APTE00160905601YYE	600 \pm 40%	1KHz/0.25V	8	10	10

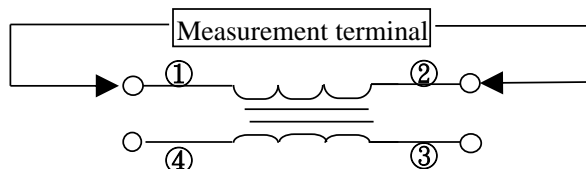
SCHEMATIC



TEST EQUIPMENT

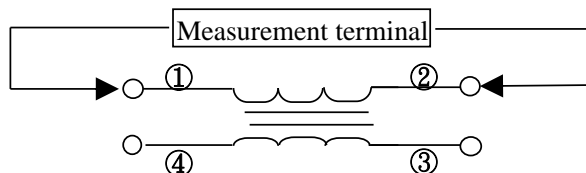
(6)-1 Inductance

Measured by HP 4284A PRECISION LCR METER



(6)-2 DC Resistance

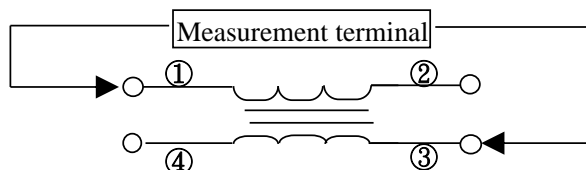
Measured by Chroma 16502 milliohm meter.



(6)-3 Insulation Resistance

Measured by Chroma 19073

Measurement voltage : 50V ,Measurement time : 3 sec.



NOTE:

1.Rated Current : Based on temperature rise (ΔT : 40°C TYP.)

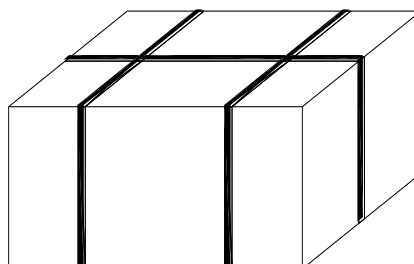
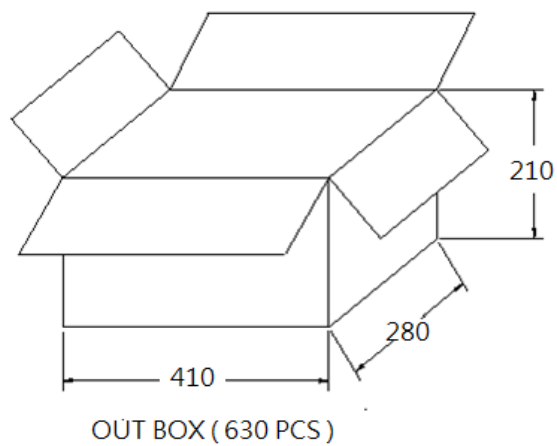
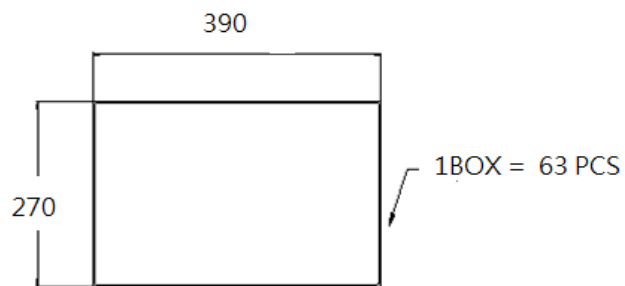
MECHANICAL

NO.	ITEMS	SPECIFICATIONS	CONDITIONS
1	Solderability test	More than 90% of the terminal electrode should be covered with solder.	Dipping: $245 \pm 5^{\circ}\text{C}$, 3 ± 1 seconds
2	lead tensile strength test	1.0 Kg MIN.	The lead of product is pulled with a load of 1.0kg minimum until lead breakdown. The tensile force shall be recorded.
3	Vibration test	$\Delta L/L \leq \pm 30\%$ Visual:OK	5g's for 20 minutes, 12 cycles each of 3 orientations. Note: Use 8"X5" PCB, .031" thick, 7 secure points on one long side and 2 secure points at corners of opposite sides. Parts mounted within 2" from any secure point. Test from 10-2000 Hz.
4	Soldering heat resistance test	Visual:OK Circuit:OK	The leads of product are dipped into a solder pot of $260 \pm 5^{\circ}\text{C}$ for a duration of 10 ± 1 sec. Nothing particular on visual and open circuitry as a result of ore testing.

ENVIRONMENTAL

NO.	ITEMS	SPECIFICATIONS	CONDITIONS
1	Humidity endurance test	$\Delta L/L \leq \pm 30\%$	1000 hours $85^{\circ}\text{C}/85\%\text{RH}$. Unpowered. Measurement at 24 ± 4 hours after test conclusion.
2	High temp endurance test	$\Delta L/L \leq \pm 30\%$	1000 hrs. at rated operating temperature (e.g. 125°C part can be stored for 1000 hrs. @ 125°C . Same applies for 105°C and 85°C . Unpowered. Measurement at 24 ± 4 hours after test conclusion.
3	Thermal shock test	$\Delta L/L \leq \pm 30\%$	1000 cycles (-40°C to $+125^{\circ}\text{C}$). Note: If 85°C part or 105°C part the 1000 cycles will be at that temperature. Measurement at 24 ± 4 hours after test conclusion. 30min maximum dwell time at each temperature extreme. 1 min. maximum transition time.

8 PACKAGE SPECIFICATION (mm)

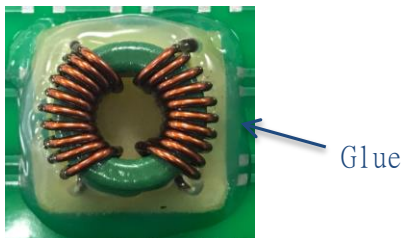


9 Note:

1. Please make sure that your product has been evaluated and confirmed against your specifications when our product is mounted to your product.
2. Do not knock or drop.
3. All the items and parameters in this product specification have been prescribed on the premise that our product is used for the purpose, under the condition and in the environment agreed upon between you and us. You are requested not to use our product deviating from such agreement.
4. Please keep the distance between transformer/coil and other components (refer to the standard IEC 950)
5. The moisture sensitivity level (MSL) of products is classified as level 1.
6. Suggestion

On customer side this product series need to be fixed by the glue after IR reflow.

Please refer to below example photo:

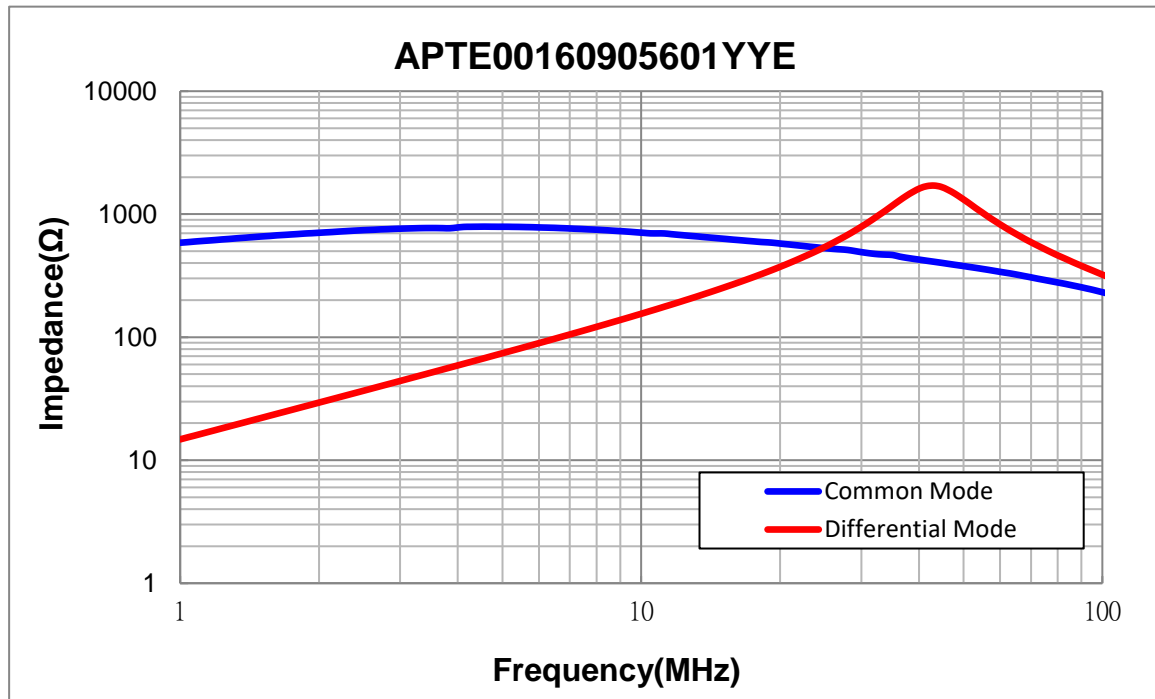


APTE00160905601YYE

AEC-Q200

TYPICAL ELECTRICAL CHARACTERISTICS

Frequency vs impedance



Temperature Curve

